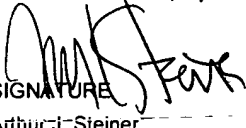


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| FORM PTO-1390<br>U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE<br><b>TRANSMITTAL LETTER TO THE UNITED STATES<br/>         DESIGNATED/ELECTED OFFICE (DO/EO/US)<br/>         CONCERNING A FILING UNDER 35 U.S.C. 371</b>                                                                                                                                                                                                                                                                                                                          |                                            | ATTORNEY'S DOCKET NUMBER<br>50389-058<br><br>U.S. APPLIC. NO. (If known, see 37 CFR 1.5)<br>Not yet assigned <b>10/526471</b> |
| INTERNATIONAL APPLICATION NO<br>PCT/JP2004/002840                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | INTERNATIONAL FILING DATE<br>March 5, 2004 | PRIORITY DATE CLAIMED<br>March 7, 2003                                                                                        |
| TITLE OF INVENTION<br>LOGICAL OPERATION ELEMENT EMPLOYING A FIELD EMISSION TYPE MICROFABRICATED ELECTRON EMITTER AND LOGICAL OPERATION CIRCUIT                                                                                                                                                                                                                                                                                                                                                                                                             |                                            |                                                                                                                               |
| APPLICANTS FOR DO/EO/US<br>Natsuo TATSUMI, Yoshiki NISHIBAYASHI, Takahiro IMAI, Tsuneo NAKAHARA                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                            |                                                                                                                               |
| Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:                                                                                                                                                                                                                                                                                                                                                                                                                            |                                            |                                                                                                                               |
| 1. <input checked="" type="checkbox"/> This is a <b>FIRST</b> submission of items concerning a filing under 35 U.S.C. 371.                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                            |                                                                                                                               |
| 2. <input type="checkbox"/> This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a filing under 35 U.S.C. 371.                                                                                                                                                                                                                                                                                                                                                                                                                      |                                            |                                                                                                                               |
| 3. <input checked="" type="checkbox"/> This express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.                                                                                                                                                                                                                                                                                                                                                         |                                            |                                                                                                                               |
| 4. <input checked="" type="checkbox"/> The US has been elected (Article 31).                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                            |                                                                                                                               |
| 5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2))<br>a. <input checked="" type="checkbox"/> is attached herewith (required only if not transmitted by the International Bureau).<br>b. <input type="checkbox"/> has been communicated by the International Bureau.<br>c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US)                                                                                                  |                                            |                                                                                                                               |
| 6. <input type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).                                                                                                                                                                                                                                                                                                                                                                                                                               |                                            |                                                                                                                               |
| 7. <input checked="" type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))<br>a. <input type="checkbox"/> are attached hereto (required only if not transmitted by the International Bureau).<br>b. <input type="checkbox"/> have been communicated by the International Bureau.<br>c. <input type="checkbox"/> have not been made; however, the time limit for making such amendment has NOT expired.<br>d. <input checked="" type="checkbox"/> have not been made and will not be made. |                                            |                                                                                                                               |
| 8. <input type="checkbox"/> An English translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).                                                                                                                                                                                                                                                                                                                                                                                                                             |                                            |                                                                                                                               |
| 9. <input checked="" type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                            |                                                                                                                               |
| 10. <input type="checkbox"/> An English translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).                                                                                                                                                                                                                                                                                                                                                                                         |                                            |                                                                                                                               |
| Items 11. to 16. below concern other document(s) or information included:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                            |                                                                                                                               |
| 11. <input checked="" type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98.                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                            |                                                                                                                               |
| 12. <input checked="" type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.                                                                                                                                                                                                                                                                                                                                                                                                  |                                            |                                                                                                                               |
| 13. <input checked="" type="checkbox"/> A preliminary amendment.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                            |                                                                                                                               |
| 14. <input checked="" type="checkbox"/> An Application Data Sheet under 37 CFR 1.76.                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                            |                                                                                                                               |
| 15. <input type="checkbox"/> A substitute specification.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                            |                                                                                                                               |
| 16. <input type="checkbox"/> A power of attorney and/or change of address letter.                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                            |                                                                                                                               |
| 17. <input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821-1.825.                                                                                                                                                                                                                                                                                                                                                                                                                  |                                            |                                                                                                                               |
| 18. <input type="checkbox"/> A second copy of the published International Application under 35 U.S.C. 154(d)(4).                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                            |                                                                                                                               |
| 19. <input type="checkbox"/> A second copy of the English translation of the International Application under 35 U.S.C. 154(d)(4).                                                                                                                                                                                                                                                                                                                                                                                                                          |                                            |                                                                                                                               |
| 20. <input checked="" type="checkbox"/> Other items or information.<br>1. Front Page of International Published Application<br>2. International Search Report prepared by JPO<br>3. PCT/RO/105<br>4. PCT/ISA/202<br>5. PCT/IB/301,304,311                                                                                                                                                                                                                                                                                                                  |                                            |                                                                                                                               |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |              |                                                                                  |            |                                       |              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|----------------------------------------------------------------------------------|------------|---------------------------------------|--------------|
| U.S. APPLIC. NO. (if known, see 37 CFR 7.56)<br>Not yet assigned <b>107526471</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |              | INTERNATIONAL APPLICATION NO.<br>PCT/JP2004/002840                               |            | ATTORNEY'S DOCKET NUMBER<br>50389-058 |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |              |                                                                                  |            | <b>CALCULATIONS</b>                   | PTO USE ONLY |
| 21. <input checked="" type="checkbox"/> The following fees are submitted:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |              |                                                                                  |            |                                       |              |
| <input checked="" type="checkbox"/> Basic National Stage Fee                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |              | \$300                                                                            |            | \$300.00                              |              |
| 22. <input checked="" type="checkbox"/> Examination Fee                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |              |                                                                                  |            |                                       |              |
| If International preliminary examination report prepared by USPTO and all claims satisfy provisions of PCT Article 33(1)-(4)                                                                                                                                                                                                                                                                                                                                                                                                                                            |              |                                                                                  | \$100      |                                       |              |
| All other situations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |              |                                                                                  | \$200      | \$200.00                              |              |
| 23. <input checked="" type="checkbox"/> Search Fee                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |              |                                                                                  |            |                                       |              |
| Search fee (37 CFR 1.445(1)(2)) has been paid on the international application to the USPTO as an International Searching Authority                                                                                                                                                                                                                                                                                                                                                                                                                                     |              |                                                                                  | \$100      |                                       |              |
| International Search Report prepared and provided to the Office                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |              |                                                                                  | \$400      | \$400.00                              |              |
| All other situations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |              |                                                                                  | \$500      |                                       |              |
| <b>TOTAL OF 21, 22 and 23 =</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |              |                                                                                  |            | <b>\$900.00</b>                       |              |
| <input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing or computer program listing filed in an electronic medium).<br>The fee is \$250 for each additional 50 sheets of paper or fraction thereof.                                                                                                                                                                                                                                                                                           |              |                                                                                  |            | \$                                    |              |
| Total Sheets                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Extra Sheets | Number of each additional 50 or fraction<br>Thereof (round up to a whole number) | RATE       |                                       |              |
| 33-100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 0/50=        | 0                                                                                | X\$250     | \$0.00                                |              |
| Surcharge of \$130.00 for furnishing the oath or declaration later than 30 months from the earliest claimed priority date (37 CFR 1.492(e)).                                                                                                                                                                                                                                                                                                                                                                                                                            |              |                                                                                  |            | \$                                    |              |
| CLAIMS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | NUMBER FILED | NUMBER EXTRA                                                                     | RATE       |                                       |              |
| Total Claims                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 23-20 =      | 3                                                                                | x \$50.00  | \$150.00                              |              |
| Independent Claims                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2-3 =        | 0                                                                                | x \$200.00 | \$0.00                                |              |
| Multiple dependent claim(s) (if applicable)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |              |                                                                                  | + \$360.00 | \$360.00                              |              |
| <b>TOTAL OF ABOVE CALCULATIONS =</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |              |                                                                                  |            | <b>\$1,410.00</b>                     |              |
| <input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by 1/2.                                                                                                                                                                                                                                                                                                                                                                                                                                                          |              |                                                                                  |            | \$                                    |              |
| <b>SUBTOTAL =</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |              |                                                                                  |            | <b>\$1,410.00</b>                     |              |
| Processing fee of \$130.00 for furnishing the English translation later than the 30 months from the earliest claimed priority date (37 CFR 1.492(f)).                                                                                                                                                                                                                                                                                                                                                                                                                   |              |                                                                                  |            | +                                     | \$           |
| <b>TOTAL NATIONAL FEE =</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |              |                                                                                  |            | <b>\$1,410.00</b>                     |              |
| Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property                                                                                                                                                                                                                                                                                                                                                                                                  |              |                                                                                  |            | +                                     | \$40.00      |
| <b>TOTAL FEES ENCLOSED =</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |              |                                                                                  |            | <b>\$1,450.00</b>                     |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |              |                                                                                  |            | Amount to be refunded                 | \$           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |              |                                                                                  |            | Amount to be charged                  | \$1,450.00   |
| <p>a. <input type="checkbox"/> A check in the amount of \$ _____ to cover the above fees is enclosed.</p> <p>b. <input checked="" type="checkbox"/> Please charge my Deposit Account No. <u>500417</u> in the amount of <u>\$1,450.00</u> to cover the above fees. A duplicate copy of this sheet is enclosed.</p> <p>c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. <u>500417</u>. A duplicate copy of this sheet is enclosed.</p> |              |                                                                                  |            |                                       |              |
| <p><b>NOTE:</b> Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.</p>                                                                                                                                                                                                                                                                                                                                                 |              |                                                                                  |            |                                       |              |
| <p>SEND ALL CORRESPONDENCE TO:</p> <p>Customer Number 20277</p> <p>Telephone: 202.756.8000</p> <p>Facsimile: 202.756.8087</p> <p>March 3, 2005</p> <p>DATE</p>                                                                                                                                                                                                                                                                                                                                                                                                          |              |                                                                                  |            |                                       |              |
| <br>SIGNATURE<br>Arthur J. Steiner<br>NAME<br>26,106<br>REGISTRATION NUMBER                                                                                                                                                                                                                                                                                                                                                                                                         |              |                                                                                  |            |                                       |              |

BASED ON FORM PTO-1390 (Rev. 2-2005)